



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,487	10/29/2001	Robert Burgess	10015534	7488

7590 02/04/2005

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
----------

RUGGLES, JOHN S

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/055,487

Applicant(s)

BURGESS, ROBERT

Examiner

John Ruggles

Art Unit

1756

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 10 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: 29,30,35-45 and 48-56.  
Claim(s) objected to: none.  
Claim(s) rejected: 1-7,22,23,25-28 and 31-34.  
Claim(s) withdrawn from consideration: 8-21,24,46 and 47.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Continuation of above item(s):

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's new arguments are still not persuasive. On page 18, Applicant suggests that Batchelder only uses "thermoset" heat-activated building material not cured by light exposure. However, Batchelder also teaches the use of other alternative classes of building material besides thermoset materials, including those cured by "light or other radiation, through chemical reaction, or both" at column 7 lines 20-22. This clearly suggests that Batchelder contemplated the alternative use of light-cured or photo-activatable building materials. Even so, Applicant is reminded that none of the instant claims are rejected over Batchelder alone, but rather over combinations of Batchelder with other references for the reasons previously set forth. In regard to Applicant's arguments on pages 19-20, Batchelder and Lawton were combined because they both relate to the same art of coating and selective curing of successive smooth or uniform layers of building material to form solid objects. While Batchelder used immediate selective laser curing at deposition of a first building material to prevent deformation, the need for immediate curing was obviated by Lawton's approach using a second building material deposited by either ink jet coating or built up from a bath of building material selectively cured with a radiation beam 107 scanned or moved over the building material to form each successive layer (Figure 1, column 6 lines 52-57). Like the scanning nozzle coating employed by Batchelder, Lawton alternatively teaches a scanning ink jet coating (column 10 lines 42-44), which is understood to involve scanning of ink jet printing nozzles to selectively distribute the building material in a more uniform controllable fashion that would not require immediate curing. On pages 20-21, Applicant alleges that neither Batchelder nor Lawton teaches or even suggests laying down a uniform layer of building material and raising an applicator used to lay down the building material. However, Batchelder describes rules for placement of each deposited layer of building material to ensure maximum smoothness of each layer before deposition of the next successive layer (column 13 lines 31-51) and further teaches alternative use of a nozzle applicator having three or more degrees of movement to make movement of a building material support table unnecessary (column 6 lines 25-28), which clearly encompasses raising of the applicator nozzle with each successive layer of deposited building material (both as previously pointed out in prior Office actions). Lawton teaches alternative (a) lowering of an underlying support for building material added from above with intermediate smoothing by a doctor blade to ensure a uniform layer as shown in Figure 3, (b) raising of an overlying support for building material successively added from below as shown in Figure 4, or even (c) ink jet printing technology to control selective deposition of each layer of building material (the latter of which is understood to involve computer control capable of raising and moving the ink jet applicator in a fashion to ensure uniform coating thickness). It is therefore still believed that the instant laying down of a uniform layer of building material and raising an applicator used to lay down the building material would have been obvious over the combination of Batchelder and Lawton as further explained above. Besides, Applicant admitted at page 4 lines 22-24 of the original specification that it was already known at the time of the invention to move or raise the supply unit or coating applicator incrementally upward after application of each layer. On pages 21-23, Applicant alleges that neither Batchelder, Lawton, Gelbart, Lin, nor Mercer teaches scanning a plurality of light emitting centers to cure the building material. As previously stated, Batchelder teaches generating a sheet of light selectively across the building material for imaging by using plural laser diodes (e.g., LEDs, etc., column 9 lines 57-66, which read on plural light-emitting centers). Gelbart also teaches fabrication of three-dimensional objects using plural laser diodes for selective curing by polymerization of a liquid precursor building material, layer-by-layer (column 4 lines 53-67).

  
John Ruggles  
Examiner, Art Unit 1756  
571-272-1390



MARK F. HUFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700